CLAIMS

1. A method for producing one or more patterns by photolithography comprising the following steps:

a) deposit on a substrate of a photosensitive resin layer,

said method comprising the following steps :

b) insulation of the photosensitive resin layer through a mask joined to said photosensitive resin layer or to a layer of index adaptation joined to said layer of resin, by a light beam having a main direction, the light beam having previously passed through an optical system joined to said mask or to a layer of index adaptation joined to said mask, which deflects the main direction of the light beam by a predetermined angle of deviation such that the main direction presents a non-zero angle of incidence on the mask with a normal relative to the principal plane of the substrate when the light beam penetrates the mask,

c) withdrawal of the mask,

d) development of the photosensitive resin layer so as to produce patterns with inclined flanks relative to a normal relative to principal plane of the substrate as a function of the predetermined angle of deviation.

2. The method according to Claim 1, the step of depositing the photosensitive resin layer being preceded by a step of depositing at least one absorbent layer of light rays.

3. The method according to Claim 1, wherein after the step a) of deposit of the photosensitive resin layer, a layer

of index adaptation is deposited on the photosensitive resin layer.

4. The method according to Claim 1, wherein before the step of insulating the photosensitive resin layer, a layer of index adaptation is placed between the optical system and the mask.

5. The method according to Claim 1, wherein the optical system comprises a prism, a diffraction network, an optical diffuser, or a network of micro-prisms.

6. The method according to Claim 1, wherein during the insulation step b) the angle of incidence on the mask varies.

7. The method according to Claim 1, wherein during the insulation step b) one the one hand the optical system and on the other hand the substrate are animated by a relative movement relative to one another, the mask being associated either with the optical system, or with the substrate.

8. The method according to Claim 1, wherein during the insulation step b) an ensemble formed by the optical system, the mask, and the substrate is animated by a relative movement relative to the light beam.

9. A device for producing one or more inclined patterns by photolithography, comprising a substrate on which rests a photosensitive resin layer of refraction index, also comprising: a mask of refraction index joined to said photosensitive resin layer or to a layer of index adaptation

resting on said layer of resin, an optical system joined to the mask or to a layer of index adaptation resting on the mask, means for insulating the photosensitive resin layer by means of a light beam of main direction, the optical system being capable of deflecting by a predetermined angle of deviation the main direction of the light beam, such that the main direction makes a non-zero angle of incidence on the mask with a normal relative to the principal plane of the substrate at the moment when the light beam penetrates the mask.

10. The device according to Claim 9, wherein the mask comprises one or more openings, the optical system and the openings of the mask having close indices of refraction.

11. The device according to Claim 9, wherein the mask comprises one or more openings, the optical system and the openings of the mask being made of the same material.

12. The device according to Claim 9, wherein the mask is integrated into the photosensitive resin layer.

13. The device according to Claim 9, wherein the optical system comprises a prism, a diffraction network, a network of micro-prisms or an optical diffuser.

14. The device according to Claim 9, wherein that it comprises a layer of index adaptation between the photosensitive resin layer and the mask.

15. The device according to Claim 9, the device comprises a layer of index adaptation between the optical system and the mask.

16. The device according to Claim 14 or 15, wherein the adaptation layer situated between the photosensitive resin layer and the mask or/and the adaptation layer situated between the optical system and the mask is a liquid such as water or a fat fluid.

17. The device according to Claim 9, comprising an absorbent layer of light beams between the substrate and the photosensitive resin layer.

18. The device according to Claim 9, the optical system is mobile relative to the substrate, the mask being associated either with the optical system or the substrate.

19. The device according to Claim 9, comprising a plate, on which rests the substrate, mobile in rotation relative to the light beam.

20. The device according to Claim 9, comprising a plate on which rests the substrate, inclinable relative to the light beam.